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## ABSTRACT OF THE DISCLOSURE

### LOW COST MULTI-RANGE INPUT CIRCUIT FOR INDUSTRIAL ANALOG INPUT MODULES

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Analog input module for a programmable logic controller, the analog input module having an input circuit with terminals for accepting either a single voltage range or a single current range from process control sensors. The analog input module includes an analog-to-digital converter and an input circuit with an output terminal connected to the input of the analog-to-digital converter, a voltage input terminal, a current input terminal, and a common terminal. The input circuit is configured to accept a voltage input between the voltage input terminal and the common terminal, to accept a current input between the current input terminal and the common terminal, and to provide an output voltage at the output terminal dependent upon either the voltage input or the current input, without switching or configuring between them.

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